

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims

1. (Currently Amended) A radio terminal controlling apparatus, comprising:

first receiving means for, from a radio terminal having a first communication interface for connecting to a cellular network and a second communication interface for connecting to an Internet protocol network, receiving a location registration request sent via said second communication interface;

storing means for storing a correspondence between identification information on said radio terminal and an IP address based on said received location registration request;

converting means for, in the case where said location registration request is not in compliance with a standard of said cellular network, converting the location registration request into a location registration message in compliance therewith; and

first sending means for sending to the cellular network the location registration message in compliance with the standard of said cellular network;

determination means for determining whether or not the identification information on the radio terminal which is a subject of a search is stored in said storing means; and

search request means for, in the case where it is determined that the identification information on said radio terminal which is the subject of the search is not stored in said storing means, sending a search request including the identification information on the radio terminal which is the subject of the search to another radio terminal controlling apparatus.

2-3. (Canceled)

4. (Currently Amended) The radio terminal controlling apparatus according to ~~claim 2~~ claim 1, further comprising transfer means for, on receiving a call set-up request from a first radio terminal to a second radio terminal, having said determination means perform a determination process as to the second radio terminal, and in the case where it is determined that the identification information on said second radio terminal is stored, reading an address of the second radio terminal and transferring the call set-up request to the read address as its destination.

5. (Original) The radio terminal controlling apparatus according to claim 1, wherein said storing means also stores the correspondence between an IP address of the radio terminal controlling apparatus controlling said radio terminal and the identification information on said radio terminal.

6. (Currently Amended) The radio terminal controlling apparatus according to ~~claim 2~~ claim 1, further comprising transfer means for, when receiving a call set-up request from a first radio terminal to a second radio terminal, reading the IP address of the radio terminal controlling apparatus controlling said second radio terminal and transferring said call set-up request to the read IP address as its destination.

7. (Currently Amended) The radio terminal controlling apparatus according to ~~claim 3~~ claim 1, wherein said radio terminal which is the subject of the search is the second radio terminal on receiving a call set-up request from a first radio terminal to a second radio terminal, and in the case where the identification information on the second radio terminal is not stored in said storing means, said converting means converts said call set-up request and said sending means sends said converted call set-up request to said cellular network.

8. (Canceled)

9. (Currently Amended) The radio terminal controlling apparatus according to ~~claim 8~~ claim 53, wherein said second sending means also sends said location registration prompting message at a time other than said sending cycle according to the standard of said cellular network.

10. (Currently Amended) The radio terminal controlling apparatus according to ~~claim 8~~ claim 53, wherein said location registration prompting message is a message for prompting the location registration with said cellular network by way of said Internet protocol network.

11-17. (Canceled)

18. (Currently Amended) A location registration auxiliary apparatus for communicating with a radio terminal controlling apparatus ~~according to claim 44~~ having:
receiving means for receiving, via an Internet protocol network, a first location registration request for registering a radio terminal of a first cellular network with a second cellular network existing in an area different from the area in which the radio terminal exists;

selecting means for selecting a location registration auxiliary apparatus for aiding the location registration with said second cellular network based on said first location registration request; and

transferring means for transferring said first location registration request to said selected location registration auxiliary apparatus;

said location registration auxiliary apparatus comprising:

converting means for converting said first location registration request received from said radio terminal controlling apparatus into a second location registration request in compliance with the standard of said second cellular network; ~~and~~

sending means for sending said second location registration request to a location registration register of said second cellular network;

activating means for activating said virtual terminal unit on receiving said predetermined message; and

assigning means for assigning unique information to said virtual terminal unit which is activated;

wherein said virtual terminal unit generates a third location registration request for registering said virtual terminal unit with said second cellular network by using said unique information, and sends it to said location registration register.

19. (Original) The location registration auxiliary apparatus according to claim 18, further comprising a conversion table for converting the first message in compliance with the standard of said first cellular network into the second message in compliance with the standard of said second cellular network.

20. (Original) The location registration auxiliary apparatus according to claim 18, further comprising a virtual terminal unit operating in compliance with the standard of said second cellular network.

21. (Canceled)

22. (Currently Amended) The location registration auxiliary apparatus according to ~~claim 24~~ claim 18, further comprising storing means for storing the correspondence between said virtual terminal unit registered instead of said radio terminal and the radio terminal.

23. (Previously Presented) The location registration auxiliary apparatus according to claim 18, wherein said radio terminal is also registered with said first cellular network.

24-27. (Canceled)

28. (Currently Amended) A radio terminal controlling method comprising the steps of:

from a radio terminal having a first communication interface for connecting to a cellular network and a second communication interface for connecting to an Internet protocol network, receiving a location registration request sent via said second communication interface;

storing a correspondence between identification information on said radio terminal and an address based on said received location registration request;

in the case where said location registration request is not a location registration message in compliance with a standard of said cellular network, converting the location registration request into a location registration message in compliance therewith; and

sending to the cellular network the location registration message in compliance with the standard of said cellular network; and

sending to the radio terminal having said identification information stored a location registration prompting message for prompting location registration based on a sending cycle according to the standard of said cellular network.

29. (Original) The radio terminal controlling method according to claim 28, further comprising a step of determining whether or not the identification information on the radio terminal which is a subject of a search is stored in said storing means.

30. (Original) The radio terminal controlling method according to claim 29 further comprising a step of, in the case where it is determined that the identification information on said radio terminal which is the subject of the search is not stored, sending a search request including the identification information on the radio terminal which is the subject of the search.

31. (Original) The radio terminal controlling method according to claim 29, further comprising the steps of:

receiving a call set-up request from a first radio terminal to a second radio terminal;

reading an address of the second radio terminal in the case where it is determined that the identification information on said second radio terminal is stored as a result of said step of determination performed as to said second radio terminal; and transferring the call set-up request to the read address as its destination.

32. (Original) The radio terminal controlling method according to claim 28, further comprising a step of storing the correspondence between the address of the radio terminal controlling apparatus controlling said radio terminal and the identification information on said radio terminal.

33. (Original) The radio terminal controlling method according to claim 29 further comprising the steps of:

receiving a call set-up request from a first radio terminal to a second radio terminal;

reading the address of the radio terminal controlling apparatus controlling said second radio terminal; and

transferring said call set-up request to the read address as its destination.

34. (Original) The radio terminal controlling method according to claim 30, wherein said radio terminal which is the subject of the search is the second radio terminal on receiving the call set-up request from the first radio terminal to the second radio terminal, and said call set-up request is converted and said converted call set-up request is sent to said cellular network in the case where the identification information on the second radio terminal is not stored.

35. (Canceled)

36. (Currently Amended) The radio terminal controlling method according to ~~claim 35~~ claim 28, further comprising a step of also sending said location registration prompting message at a time other than said sending cycle according to the standard of said cellular network.

37. (Currently Amended) The radio terminal controlling method according to ~~claim 35~~ claim 28, wherein said location registration prompting message is a message for prompting the location registration with said cellular network by way of said Internet protocol network.

38-52. (Canceled)

53. (New) A radio terminal controlling apparatus, comprising:

first receiving means for, from a radio terminal having a first communication interface for connecting to a cellular network and a second communication interface for connecting to an Internet protocol network, receiving a location registration request sent via said second communication interface;

storing means for storing a correspondence between identification information on said radio terminal and an IP address based on said received location registration request;

converting means for, in the case where said location registration request is not in compliance with a standard of said cellular network, converting the location registration request into a location registration message in compliance therewith;

first sending means for sending to the cellular network the location registration message in compliance with the standard of said cellular network; and

second sending means for sending to the radio terminal having its identification information stored in said storing means a location registration prompting message for prompting location registration based on a sending cycle according to the standard of said cellular network.